

What is Claimed:

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1. A system for displaying a real-time image of a user, comprising:  
an image projection device in a fixed position relative to the user's eyes; and  
a video control system coupled to the projection device and causing the image projection device to display a real-time representation of the user.
2. The system of claim 1, wherein the video control system includes means for superimposing an instructional signal on the real-time representation of the user.
3. The system of claim 1, further comprising  
a computer, coupled to the video control system, for generating a instructional signal.
4. The system of claim 3, wherein the system includes  
a video mixer for combining the real-time instructional signal and a video signal corresponding to the real-time representation of the user.
5. The system of claim 4, further comprising  
a video camera coupled to the video mixer for generating the real-time video signal.
6. The system of claim 1, wherein the image projection device includes

support means to allow the user to wear the image projection device.

7. The system of claim 6, wherein the image projection device includes a head-mounted display device.

8. The system of claim 7, wherein the head-mounted display device includes spectacles with a transparent lens portion.

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9. The system of claim 3, wherein the computer includes means for scaling the instructional signal to correspond to the determined size of the user.

10. The system of claim 3, wherein the computer includes computer instructions for analyzing the representation of the user and modifying the instructional signal, in real-time, based on the analysis.

11. The system of claim 2, wherein the projection device includes first and second component projection devices, the first component projection device associated with the right eye of the user and the second component projection device associated with the left eye of the user.

12. The system of claim 3, wherein the real-time representation of the user and the superimposed instructional signal displayed on the first and second projection devices correspond to complementary images in a stereoscopic video signal.

13. The system of claim 1, further including a second image projection device worn by an instructor, the second image projection device displaying the real-time representation of the user.

Sub<sup>a</sup> 37 14. The system of claim 2, further including a second image projection device worn by an instructor, the second image projection device displaying the real-time representation of the user and the superimposed instructional signal.

15. The system of claim 13, wherein the instructor is located at a remote location from the user.

16. The system of claim 14, wherein the instructor is located at a remote location from the user.

17. The system of claim 3, wherein the projection device includes an audio input port, and wherein the computer further includes an audio output port through which the computer transmits audio information to the audio input port of the projection device.

18. The system of claim 3, wherein the projection device includes an audio input port and a microphone, the audio input port receiving audio information from the computer and the microphone transmitting spoken commands to the computer, the spoken commands being directed to the computer and interpreted by the computer.

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19. A method of teaching motor skills to a user comprising  
recording a real-time representation of the user; and  
displaying to the user, from a fixed position relative to the user's eyes, the real-time representation.

20. The method of claim 19, further comprising the step of  
superimposing a video signal having instructional information in the real-time representation.

21. The method of claim 19, wherein displaying includes  
displaying the real-time representation and the superimposed video signal  
through a head-mounted display.

22. The method of claim 19, further including,  
generating the instructional signal to correspond to idealized user movement.

23. The method of claim 19, further comprising  
generating a real-time video signal of the user; and  
combining the generated video signal with the instructional information to obtain  
an integrated video signal; and  
feeding the integrated video signal to a display device.

24. The method of claim 19, further including

scaling the instructional signal to correspond to the size of the user.

25. The method of claim 19, further including the step of

providing audio information in parallel with the superimposed video instructional signal.

26. The method of claim 19, further comprising the step of

generating the superimposed video instructional signal using computer instructions and data.

27. The method of claim 26, wherein the computer instructions and data are stored locally to the user.

28. The method of claim 25, further including the step of

generating the audio information and the superimposed video signal based at least partially on information provided by a human instructor located at a location remote to the user.

29. A system comprising:

a video mixer having first and second video input ports and a video output port;

a computer including

a processor,

a memory coupled to the processor,

an input port coupled to the processor, and

an output port coupled to the processor and the first input port of the video

mixer;

a video camera for transmitting a video signal to the input port of the computer and the second input port of the video mixer; and

a head-mounted display for displaying a video signal received from the output port of the video mixer.

30. The system of claim 29, further including a signal splitter coupled between the video camera, and the computer and the second input port of the video mixer.

31. The system of claim 29, the input port further including a video capture card.

32. The system of claim 29, wherein the computer further comprises an audio input/output port; and

the heads-up display further comprises an audio input/output port.

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33. A method of overlaying an instructional signal on a real-time signal representing a person performing a physical act, the method comprising:

- analyzing an image of the person;
- scaling a pre-stored instructional signal to correspond to physical dimensions of the image of the person as determined in the analyzing step;
- generating the real-time signal of the person performing the physical act; and
- combining the scaled instructional signal with the real-time signal to form a combined signal.

34. The method of claim 33, further including displaying the combined signal using a head-mounted display.

35. The method of claim 33, further including the step of analyzing the real-time signal of the person performing the physical act to determine physical parameters of the real-time signal.

36. The method of claim 35, wherein the physical parameter includes head speed of a golf club.

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